

A system and method for measuring optical characteristics of an optical device under test (DUT) is provided. The system includes a light source for generating an optical signal applied to the optical DUT. A reference interferometer and a test interferometer are optically coupled to the light source. A computing unit is coupled to the interferometers, and utilizes amplitude and phase computing components, such as orthogonal filters, in determining optical characteristics of the optical DUT.

Figure 1 consists of 12 histograms arranged in a single column. Each histogram represents the distribution of the number of non-zero elements in the vector  $x$  for a specific value of  $n$ . The x-axis for all histograms is labeled 'Number of non-zero elements' and ranges from 0 to 120. The y-axis is labeled 'Frequency' and ranges from 0 to 100. The histograms are labeled with  $n$  values: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, and 120. As  $n$  increases, the distribution of non-zero elements shifts to the right, indicating that the vector  $x$  contains more non-zero elements as  $n$  increases.